

AMENDMENTS TO THE CLAIMS:

Please amend the claims to cancel Claims 1 - 17 and add new Claims 18 - 27 as follows, this listing of the claims will replace all prior versions, and listings, of claims in the application:

Claims 1-17 (Canceled)

18. (New) An electric machine including a brushless DC motor comprising a stator provided with current-carrying coils and at least one partly magnetizable rotor which is provided with a plurality of permanent magnets in the circumferential direction, each embedded in a magnet retainer between the peripheral surface and shaft of the rotor such that in the radial direction, the permanent magnets are completely encircled by the peripheral surface of the rotor, wherein the permanent magnets are rectangular and are arranged with their narrow sides in the circumferential direction, and wherein the stator has a plurality of stator teeth whose end surfaces of their tooth shoe adjacent to the rotor are constructed as flat and tangential to the circumferential surface of the rotor, wherein at the magnet retainer, material recesses of the core extend axially inside the rotor laterally in the circumferential direction of the rotor in such a manner that the permanent magnet protrudes into the material recesses at least with its axial edges adjacent to the peripheral surface of the rotor so that the permanent magnet is wider in the circumferential direction than its appurtenant pole shoe neck of the rotor and abuts against the pole shoe of the rotor with a partial width of its external surface and that the partial width corresponds to a tooth shoe width of a stator tooth in the circumferential direction.

19. (New) The machine according to claim 18, wherein the material recesses run parallel adjacent to the peripheral surface of the rotor with a wall thickness which is minimized such that the wall thickness can withstand centrifugal forces of the permanent magnet at the highest possible speed of the rotor.

20. (New) The machine according to claim 18, wherein the material recesses open perpendicularly on an outer surface of the permanent magnet adjacent to the peripheral surface of the rotor with which the permanent magnet abuts against the pole shoe of the rotor.

21. (New) The machine according to claim 20, wherein the material recesses have a rounded transition from a profile parallel to the peripheral surface of the rotor to a profile perpendicular to the outer surface of the permanent magnet.

22. (New) The machine according to claim 18, wherein lugs extended axially through the material recesses are formed on the magnet retainer for holding the permanent magnet.

23. (New) The machine according to claim 18, wherein each stator tooth carries turns of a single coil.

24. (New) The machine according to claim 18, wherein the electric machine is constructed with eight permanent magnets and twelve stator teeth.

25. (New) The machine according to claim 18, wherein the permanent magnets are magnetized parallel to their side surfaces facing the material recesses.

26. (New) The machine according to claim 18, wherein the permanent magnets contain at least one of ferrite, NdFeB and rare earths.

27. (New) The machine according to claim 18, wherein the permanent magnets are the same length in the axial direction or longer than the rotor.